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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/859,532	05/18/2001	David A. Ford	109528	3492

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EXAMINER

WESSMAN, ANDREW E

ART UNIT	PAPER NUMBER
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1742

9

DATE MAILED: 02/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/859,532

Applicant(s)

FORD ET AL.

Examiner

Andrew E Wessman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. Claims 1-5 and 7-18 remain for examination. Claim 6 has been cancelled. New claims 19 and 20 have been added.
2. In view of the amendment to the claims, the rejections under 35 U.S.C. 112, 2nd paragraph and 35 U.S.C. 101 have been withdrawn.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-5, 7, 11, 14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Mankins.

Mankins is applied to the claims for the reasons set forth in paper No. 7, paragraph 7. While the examiner was inaccurate in referring to the chromium content of the alloys as a content of period 6 elements, the alloy could contain 0% chromium and up to 12% tungsten or tantalum, and other varying amounts of elements such as hafnium and rhenium, and therefore Mankins still anticipates the invention as claimed.

With regards to the amended features of claim 1, wherein it is specified that the alloy is free of aluminum, the broad range of Mankins discloses (col. 3, lines 38-65) that the alloy be contain 0% aluminum. Therefore, the alloy of Mankins meets the limitations of the claimed invention.

~~With regards to new claim 19, Mankins discloses (col. 3, lines 38-65, table II) a~~
nickel-based single crystal seed alloy containing up to 12% tungsten and the remainder
nickel, which overlaps the composition of the claimed invention. See MPEP 2131.03.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Mankins in view of ASM Handbook Vol. 3.

Mankins in view of ASM Handbook Vol. 3 is applied to the claims for the reasons
set forth in paper No. 7, paragraph 8.

With regards to the amended feature of claim 10, wherein the alloy is aluminum
free, Mankins teaches (col. 3, lines 38-65) that the alloy be contain 0% aluminum.
Therefore, the alloy of Mankins meets the limitations of the claimed invention.

7. Claims 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Mankins in view of Yamazaki et al.

Mankins in view of Yamazaki et al. is applied to claim 12 for the reasons set forth
in paper No. 7, paragraph 10.

With regards to the features of new claim 20, the features of the claim are
substantially identical to claim 12 and the rejection is applied to the claim for the same
reasons.

8. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mankins in view of Shankar et al.

Mankins in view of Shankar et al. is applied to the claims for the reasons set forth in paper No. 7, paragraph 12.

9. Claims 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mankins in view of Shankar, and further in view of ASM Handbook Vol. 3.

Mankins in view of Shankar, and further in view of ASM Handbook Vol. 3 is applied to the claims for the reasons set forth in paper No. 7, paragraph 13.

With regards to the amended features of claim 13, the claim has been amended to recite specific amounts of tantalum rather than tungsten. This has essentially made claim 13 a broader version of claim 18, and as such, is rejectable for the same reasons as claim 18.

With regards to the amended features of claims 13 and 18, wherein the alloy is free of aluminum, Mankins teaches (col. 3, lines 38-65) that the alloy be contain 0% aluminum. Therefore, the alloy of Mankins meets the limitations of the claimed invention.

Response to Arguments

10. Applicant's arguments filed December 12, 2002 have been fully considered but they are not persuasive. In the remarks, applicant argues:

- (1) The cited composition in table I of Mankins, and the preferred compositions of table II of Mankins are outside the limits of the claimed invention; and
- (2) There is no suggestion to exclude aluminum from the alloy.

With regards to applicant's argument (1), the composition of table I of Mankins is refers to compositions of the alloy of the finished product, and is not relevant to the composition of the seed alloy. Table II of Mankins refers to the composition of seed alloys. The compositional limits of the alloy of table II substantially overlap the claimed invention, and therefore anticipate the claimed invention. See MPEP 2131.03.

With regards to applicant's argument (2), table II of Mankins discloses a broad range for aluminum and titanium, which includes the value of 0. While this range is not listed as a preferred embodiment of the prior art, the teachings of the prior art are not limited to the preferred embodiments, but to the document as a whole. See MPEP 2123. Therefore, Mankins teaches that aluminum is not required in a nickel single crystal seed alloy, and the rejection is maintained.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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~~the advisory action. In no event, however, will the statutory period for reply expire later~~
than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew E Wessman whose telephone number is (703)305-3163. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (703)308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

AEW
February 14, 2003


ROY KING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700